

In the Claims:

Claims 1-14 (canceled)

15. (currently amended) An apparatus for suspending ventilation in a patient and delivering radiation therapy to the patient during suspended ventilation, the apparatus comprising:

an apparatus for identifying a specific air flow direction and lung volume of the patient;

an apparatus for suspending patient ventilation at ~~said~~ the specific air flow direction and lung volume, ~~said~~ the apparatus for suspending patient ventilation including a ventilator assembly having a first selectively operable valve adapted to control inhalation of the patient and a second selectively operable valve adapted to control exhalation of the patient;

an apparatus for administering radiation therapy during the suspension of patient ventilation; and

an abort switch adapted to halt the apparatus for administering radiation therapy and open a closed one of the first and second selectively operable valves.

Claims 16-22 (canceled)

23. (new) The apparatus of claim 15, wherein the ventilator assembly comprises a t-connector that includes the first selectively operable valve, the second selectively operable valve and a pneumotach.

24. (new) The apparatus of claim 23, further comprising a computer that is operably associated with the ventilator assembly.

25. (new) The apparatus of claim 24, further comprising:
- a first valve in fluid communication with the first selectively operable valve and operably associated with the computer;
 - a second valve in fluid communication with the second selectively operable valve and operably associated with the computer; and
 - wherein the pneumotach is operably associated with the computer.
26. (new) The apparatus of claim 24, further comprising a display operably associated with the computer so that the monitor provides a readout of a cyclical lung volume trace and a target respiration level while the patient is breathing.
27. (new) The apparatus of claim 26, further comprising a mirror for viewing a face of the patient, wherein the display is attached to the mirror.
28. (new) The apparatus of claim 15, further comprising a mirror for viewing a face of the patient, wherein the display is attached to the mirror.
29. (new) The apparatus of claim 15, wherein the first selectively operable valve is a one-way valve.
30. (new) The apparatus of claim 15, wherein the second selectively operable valve is a one-way valve.

31. (new) The apparatus of claim 29, wherein the second selectively operable valve is a one-way valve.

32. (new) The apparatus of claim 15, further comprising a mouth attached to the ventilator assembly.

33. (new) An apparatus for suspending ventilation in a patient and delivering radiation therapy to the patient during suspended ventilation, the apparatus comprising:

- an apparatus for identifying a specific air flow direction and lung volume of the patient;

- an apparatus for suspending patient ventilation at the specific air flow direction and lung volume, the apparatus for suspending patient ventilation including a ventilator assembly having a selectively operable valve adapted to control both inhalation and exhalation of the patient;

- an apparatus for administering radiation therapy during the suspension of patient ventilation; and

- an abort switch adapted to halt the apparatus for administering radiation therapy and open the selectively operable valve.

34. (new) The apparatus of claim 33, wherein the ventilator assembly comprises a pneumotach.

35. (new) The apparatus of claim 34, further comprising a computer that is operably associated with the selectively operable valve and the pneumotach.

36. (new) The apparatus of claim 35, further comprising a display operably associated with the computer so that the monitor provides a readout of a cyclical lung volume trace and a target respiration level while the patient is breathing.

37. (new) The apparatus of claim 36, further comprising a mirror for viewing a face of the patient, wherein the display is attached to the mirror.

38. (new) The apparatus of claim 33, further comprising a mirror for viewing a face of the patient, wherein the display is attached to the mirror.

A. 35 U.S.C. § 103

In the Office Action mailed on August 6, 2004, claim 15 was rejected under 35 U.S.C. §103(a) as being obvious in view of the combination of Dietz, Rienmueller et al. and Anderson et al. Applicants traverse the rejection for several reasons. First, Anderson et al. is directed to nonanalogous art. The test for nonanalogous art is as follows:

The determination that a reference is from nonanalogous art is therefore two-fold. First, we decide if the reference is within the field of the inventor's endeavor. If it is not, we proceed to determine whether the reference is reasonably pertinent to the particular problem with which the inventor was involved. In re Deminski, 796 F.2d 436, 230 U.S.P.Q. 313 (Fed. Cir. 1986) citing In re Wood, 559 F.2d 1032, 1036, 202 U.S.P.Q. 171, 174 (C.C.P.A. 1979).

Upon applying the first prong of the test, one sees that Anderson et al. is not within the Applicants' field of endeavor. Applicants' claimed invention is in the field of methods and apparatuses for delivering radiation therapy during suspended ventilation. This is confirmed by reviewing 1) the "Field of the Invention" section of Appellants' Specification at page 1, lines 5-8 and 2) the preamble of claim 15 which recites "[a]n apparatus for suspending ventilation in a patient and delivering radiation therapy to the patient during suspended ventilation." In contrast, Anderson et al. discloses a phototherapeutic treatment for psoriasis that does not in any way include suspending ventilation of a patient. Instead, Anderson et al.'s patient 10 breathes normally and does not have his or her breathing suspended. Thus, Anderson et al. is not within Applicants' field of endeavor - delivering radiation therapy during suspended ventilation.

Besides not being within the Applicants' field of endeavor, it is clear that Anderson et al. is not reasonably pertinent to the particular problem with which the Applicants were involved. As stated on page 3 of Applicants' specification, the problem of organ and tumor movement

during radiotherapy due to motion of the lungs and diaphragm is the concern of Applicants' claimed invention.

It is clear that Anderson et al. does not address Applicants' problem. Instead, Anderson et al. regards applying phototherapy to the skin of a patient 10 in a sufficient manner so as to achieve clearing up the psoriasis without causing painful sunburn-like reactions. (Col. 2, ll. 9-10). While Anderson et al. does disclose either using a table 12 designed to have a patient remain steady while standing (Col. 9, ll. 28-31) or a table designed to reduce patient movement while lying down (Col. 9, ll. 31-34), nowhere does Anderson et al. disclose or suggest that lung or diaphragm movement of the patient 10 hinders the ability to determine the proper phototherapy to the skin of the patient 10.

Assuming for arguments sake that Anderson et al. is deemed analogous art, it is respectfully submitted that the combination of Dietz, Rienmueller et al. and Anderson et al. under § 103 is improper, because of a lack of motivation to do so. In particular, claim 15 recites “an abort switch adapted to halt the apparatus for administering radiation therapy and open a closed one of the first and second selectively operable valves.” The Office Action has conceded that Dietz and Rienmueller et al. each does not disclose the recited abort switch. Anderson et al. does not solve the deficiencies of Dietz and Rienmueller et al. in that Anderson et al. is directed to an apparatus for delivering ultraviolet radiation to discrete areas of a patient's skin. Anderson et al. is completely unrelated to any type of suspension of breathing during radiation therapy (see, for example, Figures 1 and 2). It is noted that the Office Action has relied on a “kill switch” mentioned at column 12, lines 3-5 of Anderson et al. as providing motivation to use the recited abort switch in Dietz. However, Anderson et al.'s “kill switch” only performs the

function of closing shutter 36 and terminating “delivery of therapeutic doses of radiation to the patient.” (Col. 12, ll. 3-5). Anderson et al. fails to have the “kill switch” also open a closed valve that is adapted to either control inhalation or exhalation of the patient in the manner recited in claim 15. Furthermore, Anderson et al.’s shutter 36 that is controlled by the “kill switch” cannot properly be viewed as a valve adapted to control inhalation and/or exhalation of a patient. Rather, as expressly described by Anderson et al., the shutter 36 simply controls transmission of radiation to the skin of a patient by positioning “...the screen to block the beams, or pass the beams through one of the apertures.” (Col. 11, ll. 14-16). Since there is no motivation to combine Anderson et al. with either Dietz or Rienmueller et al. in the manner suggested by the Office Action, the rejection is improper and should be withdrawn.

Note that claim 15 has been amended to change the word “said” to “the” so as to be consistent with the use of the word “the” throughout the claim. Since the amendments do not change the intended meaning or scope of the claimed invention, the amendments are not related to patentability as defined in *Festo Corporation v. Shoketsu Kinzoku Kogyo Kabushiki Co., Ltd.*, 234 F.3d 558, 56 USPQ2d 1865 (Fed. Cir. 2000) (*en banc*), *overruled in part*, 535 U.S. 722 (2002).

B. New Claims 23-32

New claims 23-32 depend directly or indirectly on claim 15 and so are patentable for at least the same reasons that claim 15 is patentable as set forth above in Section A.

Claims 23-32 are being presented to provide additional coverage for the apparatus of claim 15. Accordingly, the presentation of claims 23-32 is not related to patentability as defined in *Festo*.

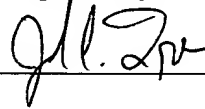
C. New Claims 33-38

Claims 33-38 are being presented to provide additional coverage for an apparatus for suspending ventilation in a patient and delivering radiation therapy to the patient during suspended ventilation. Accordingly, the presentation of claims 33-38 is not related to patentability as defined in *Festo*.

CONCLUSION

In view of the arguments above, Applicants respectfully submit that all of the pending claims 15 and 23-38 are in condition for allowance and seek an early allowance thereof. If for any reason, the Examiner is unable to allow the application in the next Office Action and believes that an interview would be helpful to resolve any remaining issues, he is respectfully requested to contact the undersigned attorneys at (312) 321-4200.

Respectfully submitted,



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